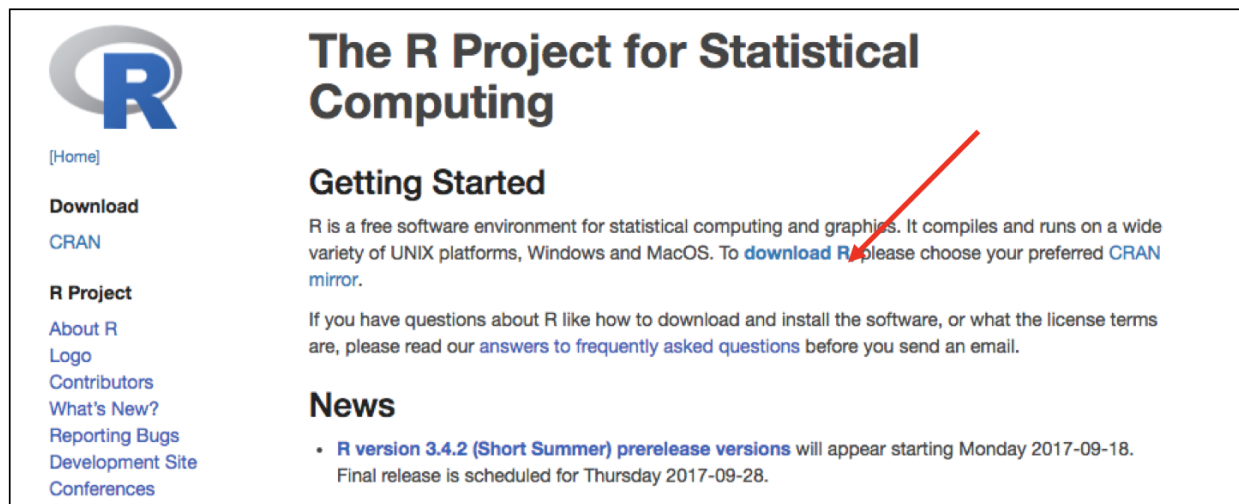# Instructions for Installing R and RStudio

Contents

These instructions are to download R and RStudio so that you can use them locally on your machine.

1. Download R. Go to the main R page.
2. Click on "download R".
3. Pick a CRAN mirror, any CRAN mirror. I usually pick UCLA, because, GO BRUINS!
4. Choose your operating system
5. Then click on the most recent version on R, at the time these instructions qwere created, R-3.4.1.pkg
6. Finish installing R as you would any new application. This procedure will vary by operating system.
7. Download RStudio. Go to this page.
8. Click the green "Download" button under the free column.
9. Pick your operating system.
10. Finish installing RStudio as you would any new application. This procedure will vary by operating system.
11. You will ALWAYS open the RStudio application to work, never R. It's just that you need R installed to use RStudio—R is running in the background whenever you use RStudio.
12. To install the anticipated packages you'll need for this workshop, run the following code:

```r
p_needed <- c("tidyverse", "lubridate", "stringr", "devtools",
              "ggmap", "GGally", "ggbeeswarm",
              "mosaic", "lme4", "nlme", "ppcor", "knitr",
              "rmarkdown", "markdown", "gee", "haven",
              "psych","foreign","lavaan")

packages <- rownames(installed.packages())

p_to_install <- p_needed[!(p_needed %in% packages)]

if(length(p_to_install) > 0){
  install.packages(p_to_install)
  }
```

Figure 1:

Figure 2:

Figure 3:

R for Mac OS X

This directory contains binaries for a base distribution and packages to run on Mac OS X (release 10.6 and above). Mac OS 8.6 to 9.2 (and Mac OS X 10.1) are no longer supported but you can find the last supported release of R for these systems (which is R 1.7.1) here. Releases for old Mac OS X systems (through Mac OS X 10.5) and PowerPC Macs can be found in the old directory.

Note: CRAN does not have Mac OS X systems and cannot check these binaries for viruses. Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

As of 2016/03/01 package binaries for R versions older than 2.12.0 are only available from the CRAN archive so users of such versions should adjust the CRAN mirror setting accordingly.

R 3.4.1 "Single Candle" released on 2017/06/07

Important: since R 3.4.0 release we are now providing binaries for OS X 10.11 (El Capitan) and higher using non-Apple toolkit to provide support for OpenMP and C++17 standard features. Please read the corresponding note below.

Please check the MD5 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type
`md5 R-3.4.1.pkg`
in the *Terminal* application to print the MD5 checksum for the R-3.4.1.pkg image. On Mac OS X 10.7 and later you can also validate the signature using
`pkgutil --check-signature R-3.4.1.pkg`

Files:

R-3.4.1.pkg
MD5-hash: 92126672ea4a9dbce28fc3258cf5d3be
SHA-hash: 4138852c052a2056ce648d886b9b47d8a514b762
(ca. 61MB)

R 3.4.1 binary for OS X 10.11 (El Capitan) and higher, signed package. Contains R 3.4.1 framework, R.app GUI 1.70 in 64-bit for Intel Macs, Tcl/Tk 8.6.6 X11 libraries and Texinfo 5.2. The latter two components are optional and can be omitted when choosing "custom install", they are only needed if you want to use the `tcltk` R package or build package documentation from sources.

Note: the use of X11 (including `tcltk`) requires XQuartz to be installed since it is no longer part of OS X. Always re-install XQuartz when upgrading your OS X to a new major version.

Important: this release uses Clang 4.0.0 and GNU Fortran 6.1, neither of which is supplied by Apple. If you wish to compile R packages from sources, you will need to download and install those tools - see the tools directory.

Figure 4:

Figure 5:

Figure 6:

```r
lapply(p_needed, require, character.only = TRUE)

install_github("RandiLGarcia/dyadr")
library(dyadr)
```

13. Enjoy!